

**STRATEGY  
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**EMPLOYMENT OF THE RESERVE COMPONENT  
MEDICAL FORCE IN CONSEQUENCE MANAGEMENT/WMD**

**BY**

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USAWC STRATEGY RESEARCH PROJECT

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## ABSTRACT

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Although the end of the cold war brought promises of a new world order, terrorism in the next century presents a potentially more lethal and complex threat to the continental United States. This paper addresses three areas. First, the emerging threats and motives for use of weapons of mass destruction will be examined. Second, several Presidential Decision Directives and DoD Directives and actions required by Public Laws will be reviewed. Finally, the types of medical force structure in each of the Reserve components and their capabilities to respond to "weapons of mass casualties" will be examined. The Department of Defense will play a major role in the domestic response to "weapons of mass casualties." The emerging threats and motives for use of "weapons of mass casualties" strongly support the further use of the reserve components when the demand placed on the Healthcare System following a WMD incident is unprecedented. Although the Army National Guard and Air Guard have early deploying capabilities to respond to a WMD incident, most reserve components do not have adequate deployable medical systems at "home station" nor do they possess complete support requirements to respond to a domestic WMD incident when they will be needed.



## TABLE OF CONTENTS

<b>ABSTRACT .....</b>	<b>III</b>
<b>LIST OF ILLUSTRATIONS.....</b>	<b>VII</b>
<b>LIST OF TABLES.....</b>	<b>IX</b>
<b>MEDICAL FORCE IN CONSEQUENCE MANAGEMENT/ WMD .....</b>	<b>1</b>
<b>EMERGING THREATS &amp; MOTIVES.....</b>	<b>3</b>
<b>POTENTIAL ACTORS .....</b>	<b>5</b>
<b>PRESIDENTIAL DECISION DIRECTIVES .....</b>	<b>7</b>
<b>DOD DIRECTIVES &amp; INITIATIVES.....</b>	<b>9</b>
<b>RESERVE COMPONENT MEDICAL RESPONSE CAPABILITIES.....</b>	<b>13</b>
<b>ARMY NATIONAL GUARD (ARNG).....</b>	<b>13</b>
<b>AIR NATIONAL GUARD (ANG) &amp; AIR FORCE RESERVE .....</b>	<b>15</b>
<b>ARMY RESERVE.....</b>	<b>17</b>
<b>NAVY &amp; MARINE CORPS RESERVE.....</b>	<b>19</b>
<b>CONCLUSIONS &amp; RECOMMENDATIONS .....</b>	<b>20</b>
<b>ENDNOTES.....</b>	<b>23</b>
<b>BIBLIOGRAPHY .....</b>	<b>27</b>



## **LIST OF ILLUSTRATIONS**

FIGURE 1.....	TRADITIONAL / EMERGING THREATS
FIGURE 2.....	CATEGORIES OF POTENTIAL ACTORS
FIGURE 3.....	ASPECTS OF TERRORISM INCIDENT RESPONSE
FIGURE 4.....	CONSEQUENCE MANAGEMENT OPCON



## **LIST OF TABLES**

TABLE 1 .....	BIOLOGICAL WEAPONS ATTACK EFFECTS
TABLE 2.....	EXPEDITIONARY MEDICAL SUPPORT (EMEDS/AFTH)
TABLE 3.....	U.S. ARMY RESERVE EARLY RESPONSE CAPABILITIES



## **EMPLOYMENT OF THE RESERVE COMPONENT**

### **MEDICAL FORCE IN CONSEQUENCE MANAGEMENT/ WMD**

"I believe the proliferation of weapons of mass destruction presents the greatest threat that the world has ever known. The next terrorist attack will come to the U.S soil in a bottle or a briefcase."

— U.S Secretary of Defense William S. Cohen

Although the end of the cold war brought promises of a New World Order, terrorism in the next century presents a potentially more lethal and complex threat to the continental United States. Nearly a decade after President Bush used the phrase, many would argue that the phrase should have been "New World Disorder". Defense Secretary Cohen would prefer to call it "the Grave New World of terrorism – a world in which traditional notions of deterrence and counter-response no longer apply."<sup>1</sup> Cohen further postulates, "perpetrators may leave no postmark or return address –no tell-tale signs of a missile launch, no residue of TNT that can be traced to a construction site, no rental truck receipts leading to fool-hardy suspects. At least 25 countries now have – or are in the process of acquiring and developing- weapons of mass destruction (WMD)."<sup>2</sup> The Nunn-Lugar-Domenici Act defines a "weapon of mass destruction" as any weapon or device that is intended, or has the capability, to cause death or serious bodily injury to a significant number of people through the release, dissemination, or impact of either toxic or poisonous chemicals or their precursors, a disease organism or radiation or radioactivity.<sup>3</sup> Internal conflicts in peer nation states such as what is occurring in the former Soviet Union or terrorists activities in many rogue states like North Korea, Iran, Iraq, Syria or Libya are the breeding grounds for possible exportation of weapons of mass destruction to the U.S. heartland.

All over the United States there is a realization that terrorists may attack our leaders, critical systems, infrastructure or individuals with weapons that possess considerable destructive power. A recent poll conducted by the Pew Research Center, about people's expectations for the next century, indicates that almost two-thirds, 64 percent, think that there will probably be a major terrorist attack on this country involving biological or chemical weapons.<sup>4</sup>

While not employing true weapons of mass destruction, the 1993 terrorist bombing of the World Trade Center in New York and the 1995 bombing of the Murrah Federal Building in Oklahoma City portend the tremendous response necessary if a WMD device is used in the US.<sup>5</sup> The explosion at the World Trade Center on 26 February 1993 left behind a 100 by 100 foot crater and filled 100 floors of the North tower with smoke.<sup>6</sup> It killed six and injured almost 100 people. The bombing of the Alfred P. Murrah Federal Building on 19 April 1995 killed 168 and injured hundreds and has been described as "the deadliest act of terrorism on US soil"<sup>7</sup>, destroying not only the federal building, but also most of a city block in busy downtown Oklahoma City. According to Badey, while the World Trade Center bombing may appear, at first glance, an isolated event, it is obviously part of a larger pattern of violence that can be

linked directly, organizationally and ideologically, to other actual and planned incidents of violence and therefore, should be classified as terrorism.<sup>8</sup>

As a result of these events, the Clinton administration and Congress undertook several initiatives to prepare the United States to respond to the domestic terrorist threat. Presidential Decision Directive (PDD-62) highlights the growing threat of unconventional attacks against the United States and details a new, more systematic approach to fighting the terrorist threat. In the recently released First Annual Report to The President and Congress, reference to weapons of mass destruction is replaced by the term CBRN terrorism (chemical, biological, radiological, and nuclear).<sup>9</sup> The panel adopted this term instead because of their belief that, with the exception of nuclear weapons, none of the unconventional weapons by itself is capable of wreaking mass destruction. Furthermore, the panel concluded that the terminology "weapons of mass casualties" might be a more accurate depiction of the potentially lethal power that could be unleashed by chemical, biological, or nonexplosive radiological weapons.

The Department of Defense will play a major role in the domestic response to "weapons of mass casualties." The emerging threats and motives for use of "weapons of mass casualties" strongly support the further use of the reserve components when the demand placed on the Healthcare System following a WMD incident is unprecedented. Although the Army National Guard and Air Guard have early deploying capabilities to respond to a WMD incident, most reserve components do not have adequate deployable medical systems at "home station" nor do they possess complete support requirements to respond to a domestic WMD incident when they will be needed. The recommendations from the Reserve Component Employment (RCE-05) Study along with recommendations of the Advisory Panel should form the basis for development of a more comprehensive plan for increasing the capabilities of the Reserve Components medical forces to respond to a terrorist incident especially if it is in response to "weapons of mass casualties.

## **EMERGING THREATS & MOTIVES**

The U.S. society is highly resilient to attack as witnessed by the aftermath of the incidents in Oklahoma City and New York City. However, as pointed out by BG Lawlor, its' ability to absorb continuous attacks that do not constitute acts of war or its resiliency in the event of a single massive attack involving a weapon of mass destruction (WMD) has yet to be tested.

The appearance of new threats to the United States also relates directly to the preeminence of U.S. military power (see Figure 1). It is the opinion of the Army Directorate of Military Support that for the immediate future, the U.S. military has eliminated the threat of conventional war by any peer or near-peer nation state.

### **Traditional / Emerging Threats**

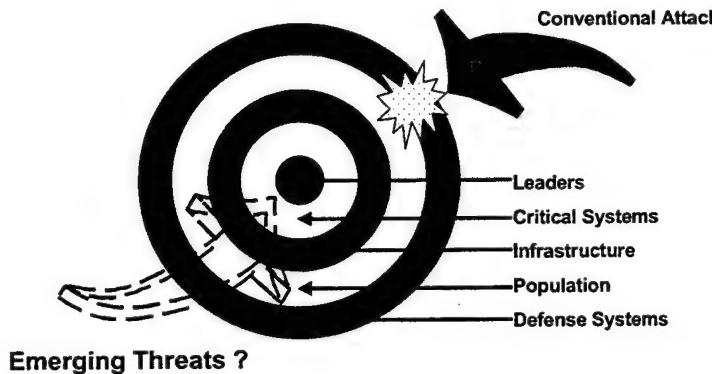


FIGURE 1.

The recently released First Annual Report to the President and The Congress of the Advisory Panel points out that CBRN terrorism has emerged as a U.S. national security concern for several reasons:

- There has been a trend toward increased lethality in terrorism in the past decade.
- There is an increasing focus on the apparent dangers posed by potential CBRN terrorism.
- Terrorists may now feel less constrained to use a CBRN device in an attempt to cause mass casualties, especially following the precedent-setting attack in 1995 by the Aum Shinrikyo

The ineffectiveness of conventional warfare as a tool against the U.S. has resulted in the emergence of asymmetrical threats that attack not our strengths but our perceived weaknesses.<sup>10</sup> One of the many weaknesses in the U.S. is the fact that there has never been a major biological warfare terrorist attack. Therefore, there is no track record of incidents, groups, tactics, motives, and targets for analysis to determine the best strategies for combating this emerging threat.<sup>11</sup> Another perceived weakness in our society is the U.S. commitment to an open society, in travel as well as with our communication devices, that allow us to encrypt our conversations. FBI Director Freeh recently highlighted this as "their worst fear in terms of not doing their job: that is, not being able to discover what's about to happen."<sup>12</sup> These alleged weaknesses, coupled with the "hardness" of the U.S. population, have become the preferred target of potential terrorists.

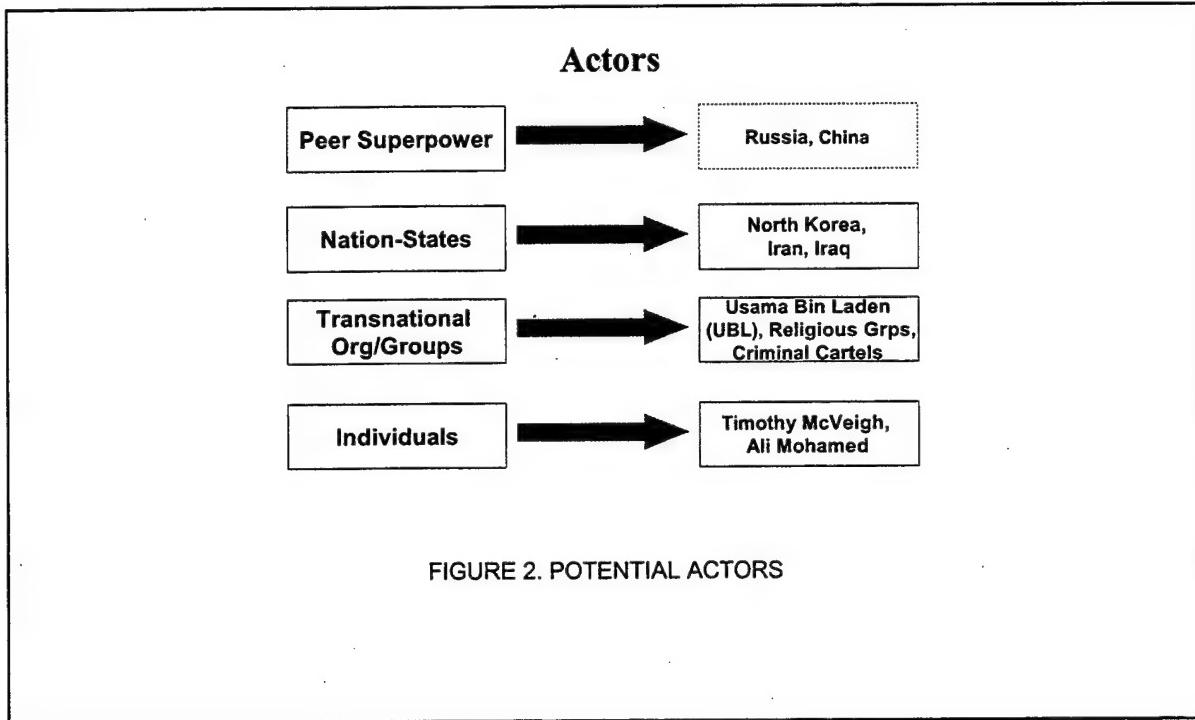
Weapons of Mass Destruction (WMD) type cases, primarily those cases dealing with the threatened use or procurement of chemical and biological materials with intent to harm, have steadily increased.<sup>13</sup> The FBI reported that in 1996, 37 cases were opened; 1997, 74 cases opened, of which 22 were related to biological agents. By 1998, FBI opened 181 cases, 112 of which were biological in nature. In 1999 (as of 19 May), there were 123 WMD cases opened, 100 of which were threatening a biological release. In 1998 and 1999, the FBI reported over three-quarters of the cases opened threatened a biological release, and the biological agent most often cited in 1998 and 1999 was anthrax.<sup>14</sup>

The U.S. Commission on National Security/21<sup>st</sup> Century recently concluded that "America will become increasingly vulnerable to hostile attack on our homeland, and our superiority will not entirely protect us."<sup>15</sup> Furthermore, "states, terrorists, and other disaffected groups will acquire weapons of mass destruction and mass disruption, and some will use them on American soil, possibly in large numbers." The reasons terrorists may perpetrate a WMD attack include a desire to kill as many people as possible as a means "to annihilate their enemies," to instill fear and panic to undermine a governmental regime, to create a means of negotiating from a position of unsurpassed strength, or to cause great social and economic impact.<sup>16</sup> CIA Director George Tenet in testimony to Congress emphasized that Saudi exile Osama bin Laden is determined to strike further blows against America and appears to be widening his web of connections to anti-U.S. groups.<sup>17</sup>

## POTENTIAL ACTORS

The sources of potential terrorist attack against the U.S. fall into 4 categories (see Figure 2).<sup>18</sup>

According to BG Lawlor, our concepts of national defense emerged during a time when the U.S. soil was largely shielded from land attack by the two oceans and the primary threat was competitor nation states.



As Secretary of Defense Cohen points out at every opportunity, "we have the world's most powerful military, and our strategy is to keep our forces without any peer." "We don't want to engage in a fair fight, a contemporary war of attrition. We want to dominate across the full spectrum of conflict so that if we ever have to fight, we win on our terms."<sup>19</sup> This ability as the world's most powerful military makes conventional attack by a nation state highly unlikely during the immediate future. However, that capability is not as effective against groups or individuals with easy access to the U.S. who seeks to use unconventional, asymmetric means to strike our Achilles heel.<sup>20</sup>

The recently released First Annual Report to the President and The Congress of the Advisory Panel identifies the "most likely terrorist groups" to use CBRN as fundamentalist or apocalyptic religious organizations, cults, and extreme single-issue groups but suggests that such a group may resort to a smaller-scale attack to achieve its goal.<sup>21</sup> The threat from such groups and individuals has increased as witnessed by border arrests at Seattle and Vermont in December 1999 prior to the New Year. Not only is there increased vigilance at our borders by U.S. Immigration & Naturalization Service personnel but the Federal Aviation Administration has also proposed new rules for screening baggage and passengers by private security companies. After investigating numerous airports the last 2 years, the FAA is concerned

by the many breaches involving screeners routinely failing to detect test items such as pipe bombs and guns hidden in bags carried by FAA agents.<sup>22</sup>

Peer superpower nations, rogue nation states and transnational groups have the capability to acquire missiles and launch them against the U.S. homeland. However, individuals and transnational groups have the capability of carrying out the greatest number of threats and are therefore the two specific categories that concern federal authorities. The FBI believes that the threat posed by international terrorists in state sponsored terrorism, transnational organizations and individual extremists will continue for the foreseeable future.<sup>23</sup> Deep concern exist in the declining state of the Russian economy and of the poorly paid or unemployed former Soviet scientists who might attempt to sell their expertise in chemical, biological and nuclear weapons to terrorists groups or rogue states like North Korea, Iran or Iraq.<sup>24</sup>

The reasons that individuals or transnational terrorists groups may perpetrate a WMD attack (more appropriately – weapons of “mass casualties”) include a desire to kill as many people as possible as a means to “annihilate their enemies,” to instill fear and panic to undermine a governmental regime, to create a means of negotiating from a position of unsurpassed strength, or to cause great social and economic impact.

The recently released report of the Advisory Panel concluded:

- The U.S. must be prepared for the entire spectrum of potential terrorists threats – both the unprecedented higher consequence attack, as well as the historically more frequent, lesser consequence terrorist attack, which the Panel believes is more likely in the near term.
- Whether small-scaled CBRN or conventional, any such lower-consequence event- at least in terms of casualties or destruction- could, nevertheless, accomplish one or more terrorist objectives: exhausting response capabilities, instilling fear, undermining government credibility, or provoking an overreaction by the government.

This fiscal year the Advisory Panel will be assessing the various Federal agencies efforts to enhance domestic preparedness for incidents involving WMD. In addition, the Panel will be assessing the deficiencies in programs for responses to incidents involving WMD since DoD established the Domestic Preparedness in the Defense Against WMD Program in response to the Nunn-Lugar-Domenici Act and Presidential Decision Directive 62. As a key element in its review and analysis of DoD programs, the Panel will consider appropriate missions of the U.S. armed forces, in either direct or supporting roles, for responses to such terrorist incidents, with emphasis on an evaluation of the effectiveness of the current and proposed structure of military organizations for responses across the entire spectrum of potential threats.<sup>25</sup> The recommendations from the Reserve Component Employment (RCE-05) Study along with recommendations of the Advisory Panel should form the basis for development of a more comprehensive plan for increasing the capabilities of the Reserve Components medical forces to respond to a terrorist incident.

## PRESIDENTIAL DECISION DIRECTIVES

In June 1995, the White House issued Presidential Decision Directive 39 (PDD-39), "United States Policy on Counterterrorism." PDD-39 was issued in response to the worst terrorist incident on United States soil in the bombing of the Murrah Federal Building in Oklahoma City. PDD-39 directed a number of measures in a national counterterrorism strategy:

1. Threat/ vulnerability management - Reduce the nation's vulnerability to terrorist attacks and deter terrorist acts before they occur.
2. Crisis management - Respond to terrorist acts that occur, end the crisis or deny terrorists their objectives, and apprehend and punish terrorists.
3. Consequence management - Manage the consequences of terrorist acts, including restoring essential government services and providing emergency relief, to protect public health and safety.

The following figure taken from the Terrorism Incident Annex of the Federal Response Plan depicts the various levels and types of federal and state response to terrorism.<sup>26</sup>

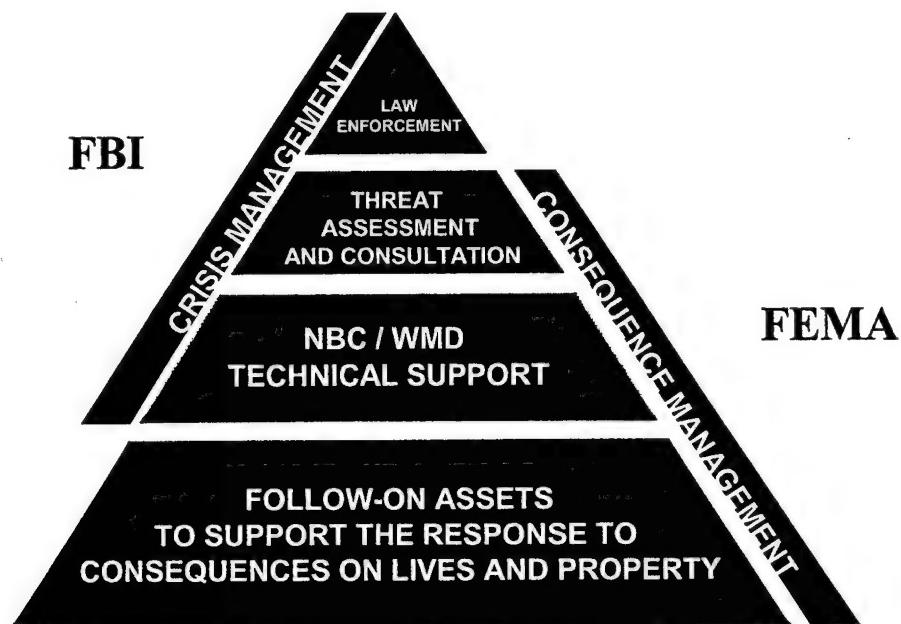


FIGURE 3. ASPECTS OF TERRORISM INCIDENT RESPONSE

Crisis management includes measures to identify, prevent, and/or resolve a threat or act of terrorism. At the Federal level, the Department of Justice (DoJ) is the lead federal agency for domestic crisis management because crisis management is a law enforcement response. The DoJ delegates this overall lead federal agency role to the FBI for the operational response. Crisis management includes those efforts prior to a WMD incident, including prevention, threat assessment and consultation. It also includes measures to identify, acquire, and plan the use of resources needed to anticipate, prevent, and/or resolve a threat or act of terrorism.

Consequence management includes measures to protect public health and safety, restore essential government services, and provide emergency relief to governments, businesses and individuals affected by the consequences of terrorism. The primary authority is given to individual states to respond and manage though over 40 various federal agencies may be involved in the management of terrorist incidents by providing expertise, staffing and equipment. PDD-39 states, "The Federal Emergency Management Agency (FEMA) shall ensure that the Federal Response Plan is adequate to respond to the consequences of terrorism."

The Department of Defense role in both crisis management and consequence management is to support the Department of Justice thru the FBI and FEMA, which are the lead federal agencies in cases of domestic terrorist attack or natural disasters. Under the Federal Response Plan, the Secretary of Defense will personally manage DoD support of a federal response to a domestic terrorist incident. DoD further designated the Army as the DoD executive agent for strategic policy and planning for consequence management. DoD will activate technical operations capabilities to support the Federal response to threats or acts of WMD terrorism. If a terrorist incident occurs in the U.S., the FBI may deploy a Domestic Emergency Support Team (DEST) to the incident site. DoD members may be chosen among a group of trained experts sent to assist the FBI investigation at the WMD incident site. DoD will coordinate military operations within the U.S. with the appropriate civilian lead agency for technical operations when responding to a domestic terrorist incident.

During hearings held in 1995 and 1996, the US Senate Permanent Subcommittee on Investigations found that the United States did not have a plan that coordinated federal, state, and local agencies in managing the consequences of a terrorist attack.<sup>27</sup> The Clinton administration addressed this lack of coordination with Presidential Decision Directives - PDD-62 and PDD-63.<sup>28</sup> PDD-62 highlighted the growing threat of unconventional attacks against the U.S. and detailed a new and more systematic approach and assigned responsibilities for responding to terrorist acts involving WMD. PDD-63 called for a national effort to ensure the security of the U.S. and the increasingly vulnerability of infrastructures to attack from advanced computer technology.

## DOD DIRECTIVES & INITIATIVES

DoD military assistance directives to respond to federal, state, and local government and their law enforcement agencies have been in effect since August 1971. Military Support to Civil Authorities (MSCA) under DoD Directive 3025.1, dated 15 January 1993, consolidated all policy and responsibilities applicable to disaster related civil emergencies within the United States including terrorist attacks.<sup>29</sup> This directive constituted a single system for MSCA, by which DoD components shall plan for, and respond to requests from civil government agencies for military support in dealing with the actual or anticipated consequences of civil emergencies requiring Federal response for national security emergencies and terrorist attacks on the United States and its territories. It does not include military support to law enforcement authorities under Military Assistance for Civil Disturbances (MACDIS).

The Army Director of Military Support acts as the DoD executive agent and has the authority to task the DoD components to plan for and to commit DoD resources, in response to requests from civil authorities under MSCA. When "imminently serious conditions have resulted from any civil emergency or terrorist attack, local military commanders may immediately respond to requests from civil authorities to save lives, prevent human suffering, or mitigate great property damage." "Immediate response" authority under this directive still requires the commander of military forces to inform thru their chain of command and the Secretary of the Army to the Director of Military Support actions taken when conditions and time do not permit the commander from obtaining approval. Rescue, evacuation, and emergency medical treatment of casualties, maintenance or restoration of emergency medical capabilities, and safeguarding the public health are all authorized as immediate response.

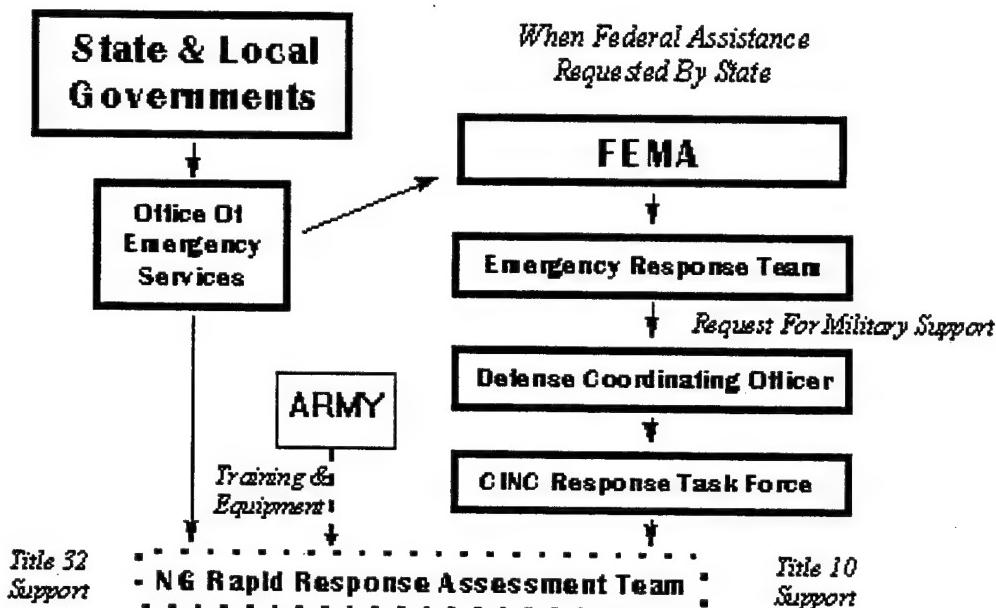
DoD provides further guidance for providing military assistance to civil authorities in DoD Directive 3025.15, dated 18 February 1997. This directive governs all military assistance provided to civil authorities within the U.S. and its territories under DoD Directive 3025.1, Military Support to Civil Authorities and DoD Directive 3025.12, Military Assistance for Civil Disturbances. This directive also includes support in connection with incidents involving an act or threat of terrorism under DoD Directive 2000.12, DoD Antiterrorism/Force Protection (AT/FP) Program. DoD Directive 2000.12, DoD Antiterrorism/Force Protection (AT/FP) Program was revised in April 1999 from the previous DoD Combating Terrorism Program.

Under this directive, the employment of active and reserve military forces in response to acts or threats of domestic terrorism must be requested by the Attorney General and authorized by the President. The Secretary of Defense must approve all requests for assistance in responding to acts or threats of terrorism. The Chairman of the Joint Chief of Staff assists the Secretary of Defense in implementing the DoD operational response to acts or threats of terrorism.

DoD Directive 3025.15 does not address non-Federalized National Guard military forces in support of local and state civil authorities. Army and Air National Guard forces, when not federalized, may respond to a WMD incident when called upon by the State Office of Emergency Services (SOES) under Title 32 provisions (see Figure 4).

FIGURE 4.

## Consequence Management OPCON



In July 1996, the U.S. Senate passed the Nunn-Lugar-Domenici legislation known as the Defense Against Weapons of Mass Destruction Act of 1996 as an amendment to the Defense Authorization Act of 1996. Under the act the "President of the United States is directed to take immediate action to enhance the capability of the Federal government to prevent and respond to terrorist incidents involving weapons of mass destruction, and to provide enhanced support to improve the capabilities of state and local emergency response agencies to prevent and respond to such incidents at both the national and the local level."<sup>30</sup> The Domestic Preparedness Program consists of a set of measures created to increase domestic preparedness for chemical, biological or nuclear terrorism. Responsibility was assigned to DoD with the U.S. Army Soldier and Biological Chemical Command (SBCCOM) designated Program Director for Domestic Preparedness to coordinate, integrate, and execute a program to enhance domestic preparedness to nuclear, biological, and chemical terrorism.<sup>31</sup>

One of the valuable lessons learned during the organization, identification, and development of the first responder training courses for the Domestic Preparedness Program may ultimately be a major factor in the DoD response under the Federal Response Plan. They learned that the massive number of casualties and the mass decontamination required would completely "tax" the capabilities of a city

involved in an NBC incident.<sup>32</sup> Table 1 shows the potential mass casualties a biological attack can cause whether it is an indoor attack or an open-air attack.<sup>33</sup>

If almost 5,500 civilian casualties became "symptomatic" after release of sarin in the Tokyo subway incident and 135 of the first responders also became casualties, how will first responders and the local medical system in cities across the U.S. be able to manage an incident involving biological or nuclear terrorism? How many thousands of "worried well" will test the capacity of U.S. health care facilities should an agent such as anthrax or tularemia be released on Americas soil?

The Director of FEMA or the Assistant Secretary of Health, Department of Health and Human would most likely activate the National Domestic Medical System (NDMS), a joint Federal, state and local mutual aid organization, in response to a domestic WMD incident when the capacity of local treatment facilities is exceeded. Under NDMS, the DoD Components shall participate in relief operations to the extent compatible with U.S. national security.<sup>34</sup> DoD response would include deployable medical systems composed of fixed contingency hospitals and other than fixed contingency hospitals that are not operated in peacetime. All DoD reserve components have deployable medical systems capable of being located in a required area of operation during a contingency, war, or national emergency such as a WMD incident.

The newly established standing Joint Task Force- Civil Support will provide command and control over DoD forces in support of a Lead Federal Agency, such as the Federal Emergency Management Agency, for weapons of mass destruction consequence management activities in the United States, its territories and possessions. BG Lawlor commands the task force that will ensure that DoD assets are prepared to respond to requests for support under Presidential Decision Directive (PDD-62).<sup>35</sup>

Each DoD component possesses the expertise, trained manpower and equipment that can support a response to a CBRN attack. The challenge for all DoD components is to find the capabilities to respond early, within 48-72 hours from the time of alert until fully operational, when called upon by state authorities if permitted under Title 32 authority or upon declaration of national emergency by the President. Most components do not have early deploying capabilities in their deployable medical systems nor do they possess complete support requirements.

TABLE 1. BIOLOGICAL WEAPONS ATTACK EFFECTS

<b>Agent</b>	<b>Amount of Agent</b>	<b>Area Affected</b>	<b>Population Exposed</b>	<b>Estimated Fatalities</b>
<b>Indoor Attack (Arena)</b>				
Anthrax	1-100 liters crude liquid	Inside Building	10,000-50,000	8,000-40,000
Brucellosis	1-100 liters Crude liquid	Inside Building	10,000-50,000	160-800 (8,000-40,000 Sick)
<b>Open-air Attack (City)</b>				
<b>Line Source</b>				
Tularemia	50 kg dry Powder	40 sq. km	500,000	19,000 (250,000 sick)
Anthrax	50 kg dry Powder	40 sq. km	500,000	100,000 (250,000 sick)
Anthrax	100 kg dry	300 sq. km	1-3 million	1-3 million
<b>Point Source</b>				
Anthrax	30 kg dry	10 sq. km	30,000-100,000	30,000-100,000
NOTES:				
* "Line Source" means the agent is dispersed at a large number of points along a line or is dispersed from a vehicle or aircraft moving along a straight line.				
* "Point source" means an "on-target" attack.				
* Open-air is weather dependent.				

## RESERVE COMPONENT MEDICAL RESPONSE CAPABILITIES

### ARMY NATIONAL GUARD (ARNG)

While many reserve components possess basic skills and capabilities that can be applied to WMD medical response requirements, few have been specifically focused on the precise tasks or possess the necessary equipment with the appropriate assets to respond to an incident which "weapons of mass casualties" might be employed. Since the Army National Guard has units in cities and towns throughout the U.S., they may respond under the immediate response doctrine when necessary to save lives, prevent human suffering, or mitigate great property damage. Many of these same units have executed memorandum of understanding for mutual support of emergency services with local cities and towns. Army National Guard units may also respond under state control when directed by State Office of Emergency Services under Title 32 provisions.<sup>36</sup>

The most ambitious program currently being undertaken in the effort to respond to a WMD incident is the fielding of National Guard WMD Civil Support Teams. These were formerly known as Military Support Detachments or Rapid Assessment, Initial Detection (RAID) Teams and are part of the DoD overall effort to support local, state, and federal civil authorities if a WMD incident occurs on U.S. soil. On 13 January 2000, the Secretary of Defense announced the stationing plan for 17 additional WMD Civil Support Teams for FY 2000. The National Guard had already stationed 10 Teams in FY99. These teams will serve as "second responders" in a domestic crisis and are tasked to assist local first responders in assessing conditions after an incident, identifying chemical and biological agents at the scene, advise responders on appropriate actions and help coordinate further state and federal assistance.<sup>37</sup>

A sound command and control structure is essential to a successful response to a domestic WMD incident. The Army National Guard has limited medical command and control structure that could respond under Title 32 before an incident becomes federalized. The ARNG currently has Medical Evacuation Battalions located in Nebraska and Oregon that could provide command and control of air and ground medical evacuation units within their respective states under the governor's authority. In October 2000, ground ambulance companies will be located in four Midwest states and two Eastern states while five air ambulance companies will be located in the Eastern states, five in Midwestern states four in Western states and one in Louisiana. Only Nebraska has the capability to respond to a domestic incident with an Evacuation Battalion, Ground Ambulance Company and an Air Ambulance Company, though the likelihood of an incident occurring in that state is significantly less than states with highly populated areas that are more vulnerable. In FY01, each ground ambulance company will have clinical assets to respond with 24 ambulances while each air ambulance company can support SOES with 12-15 Blackhawk helicopters, each transporting 6 litter patients or 7 ambulatory patients.

The Army Guard no longer has Echelon III health support force structure with hospitals nor specialty teams but does have adequate Echelon II combat health support structure in Area Support Medical Companies, Forward Support Battalions, and Main Support Battalions located throughout the

U.S.<sup>38</sup> Each company and battalion with medical companies has the capability to respond with sufficient clinical assets to manage 40 litter patients along with ground ambulance assets. Headquarters STARC Medical Detachments have adequate personnel to augment with Medical Support Teams in specialty areas such as Pharmaceutical Distribution Teams, NBC Medical Treatment Teams, Preventive Medicine Teams, Infectious Disease Teams, Decon/Patient Regulating Teams and Stress Management Teams.

## AIR NATIONAL GUARD (ANG) & AIR FORCE RESERVE

The Air Guard, just like the Army National Guard, plays a key role in early response because of their link to state offices of emergency services and availability for activation by a governor under Title 32. The Air National Guard and Air Force Reserve current operational health support can be characterized as a "static echelon system" with a fixed set of capabilities that were constrained by heavy deployable medical systems with significant lift limitations. These echelons included the smaller Air Transportable Clinic at Echelon II, the Air Transportable Hospital (ATH) at Echelon III and USAF Contingency Hospitals at Echelon IV. These echelons, like the other reserve components, were tied to fixed locations, fixed footprint due to mobility limitations and have a fixed set of capabilities.

The Air Transportable Hospital has the capability to deploy anywhere in the U.S. and be operational within 24 hours of alert order.<sup>39</sup> Each ATH possesses the capabilities for triage, patient decontamination, primary medical and dental care, stabilization of surgical and medical patients, and preparation for aeromedical evacuation if necessary. Air Transportable Hospitals can deploy with 50 beds and has the capability to expand with a 50-hospital/surgical beds.

The ANG and Air Force Reserve is currently undergoing a redesign under the new Expeditionary Air Force (AEF) doctrine with the objective to be able to deploy incrementally in a lighter, leaner fashion with more life saving capability.<sup>40</sup> Each will be able to offer the full continuum of care in response to a WMD incident with first responders, forward resuscitative surgery, hospital facilities from a small 10 bed initial response to a 250 bed mature facility and definitive care. The ANG and Air Force Reserve will soon possess the capability for a new concept of "essential care" defined as "that care required by casualties/injured within a 6-12 hour window. Mature theater hospitals will be capability defined and may be 75 beds, 100 beds or in some cases 500 beds for Echelon IV care.

In September 1999, the Air Force Surgeon General approved the Expeditionary Medical System and Air Force Theater Hospital (EMEDS/AFTH) as part of the overall AEF package.<sup>41</sup> There are 3 initial, modular increments to the EMEDS/AFTH that have a significant reduction in weight and cube resulting in reduced airlift requirements (see Table 2.). Additional capability may be added to the EMEDS/AFTH system using rapid response, highly capable modular "building blocks" into a fully resourced Air Force Theater Hospital which may be vital in response to an incident where weapons of "mass casualties" are used. The number of ANG and Air Force Reserve EMEDS packages to be fielded in each component has not been determined yet.

Medical Support Teams can provide additional specialty expertise for WMD response as Patient Decon Teams, Mobile Field Surgery Teams, Mental Health Rapid Response Teams, Expeditionary Critical Care Teams, Nuclear Incident Response Force Teams, Radioanalytical Augmentation Team, Theater Epidemiology Team, BEE NBC Team, PAM/Infectious Disease Teams, or Biological Augmentation Teams.

Air Expeditionary Operations also possess the capability to provide 100–250 additional beds at Mobile Aeromedical staging facilities. These beds along with the rapid, modular expansion capacity of EMEDS and Air Force Theater Hospitals give the Air National Guard and Air Force Reserve an edge over any capability that could be provided by the Army Guard or Reserve, Marine Corps Reserve or Navy Reserve.

## Expeditionary Medical Support and Air Force Theater Hospital (EMEDS/AFTH)

	<b>BASIC</b>	<b>+10</b>	<b>+25</b>
<b>PERSONNEL</b>	<b>25</b>	<b>56</b>	<b>87</b>
<b>PALLETS</b>	<b>3</b>	<b>12</b>	<b>18</b>
<b>BEDS</b>	<b>4*</b>	<b>10</b>	<b>25</b>
<b>PAR</b>	<b>500-2000</b>	<b>2000-3000</b>	<b>3000-5000</b>
<b>MAJOR TRAUMA SURGERIES</b>	<b>10 or</b>	<b>10 or</b>	<b>20 or</b>
<b>NON-OPERATIVE RESUSCITATIONS</b>	<b>20 in 48 hrs</b>	<b>20 in 48 hrs</b>	<b>20 in 48 hrs</b>
<b>AIRLIFT</b>	<b>1-C130</b>	<b>1-C17</b>	<b>1-C17</b>

**\*Holding Beds Only**

**Note: All numbers are  
cumulative**

TABLE 2.

## ARMY RESERVE

The Army Reserve for several reasons cannot duplicate the early, rapid response capabilities of the Army and Air National Guard. First, the Army Reserve cannot be called upon to respond to a domestic WMD incident by a governor under Title 32 authority and therefore can be activated only after the President has declared a national emergency. The Army Reserve though is gearing up for the new civil support mission with the capability of up to 120,000 soldiers of the Army Reserve's 205,000 soldiers to provide support to civil authorities in 1,100 Army Reserve Centers in cities and towns throughout the U.S.<sup>42</sup>

The second reason the Army Reserve cannot duplicate the capabilities in the Army and Air Guard stems from the fact that both Guard components possess organic transportation resources that allow early, rapid response. Army Reserve medical units are at a significant disadvantage because most have only limited organic vehicles at home station and maintain only a MEET (Mission Essential Equipment Training) set for unit training on Deployable Medical System (DEPMEDS) equipment.

In FY 2000, the Army Reserve will train 100 out of a total 127 decontamination platoons and 8 of the 15 chemical reconnaissance platoons to act in a civil support role. In addition, two Biological Integrated Detection System (BIDS) Companies are available for detection of biological agents in a WMD incident.<sup>43</sup> Four additional BIDS Companies will be added between FY02-FY05. One limitation in expanding the capabilities of over 2,000 reserve units, according to the National Guard and Reserve Equipment Readiness Report, is the reserve components are simply not equipped to meet the full requirements of the National Military Strategy.<sup>44</sup> The Chief of the Army Reserve emphasizes at every opportunity that "the Army Reserve is not a first responder organization; we are ready to provide assistance to support and sustain those organization that do respond first. The Civil Support mission requires capabilities resident in the Army Reserve."<sup>45</sup>

The USAR has sufficient command and control structure essential for a successful response to a domestic WMD incident. The 3<sup>rd</sup> Medical Command (Theater) can provide command and control of all assigned medical units and technical assistance of a Medical Task Force under operational control of the Joint Task Force – Civil Support. Additional structure composed of eight Medical Groups and five Medical Brigades located throughout the U.S. and two Medical Evacuation Battalions could provide additional command and control. Ground ambulance companies with 24 ambulances each are located in two Midwest states, three Eastern states and California.

The Army Reserve contains over 59 percent of the medical assets of the Army and has more medical assets than any other reserve component. The Army is undergoing a "Medical Reengineering Initiative" (MRI) effort similar to the Air Force to reduce the weight and cube and improve the deployability and mobility of DEPMEDS hospitals. The USAR current inventory of 22 Combat Support Hospitals, 6 Field Hospitals and 4 General Hospitals are scheduled to convert to a total of 25 MRI hospitals beginning in 2003. However, the need exists for an early entry hospital capability that current USAR hospitals fail to provide. Most USAR hospitals lack adequate transportation resources and can only provide 40 to 116

beds from a HUB, HUS and/or HUM MEET training sets should immediate response be needed in a WMD incident (see Table 3).<sup>46</sup> The remainder of the unit's medical and non-medical Associated Items of Equipment (ASIOE) is centrally stored for the units as part of the Reserve Component Hospital Decrement (RCHD) program. Currently there are 25 Combat Support Hospitals of RCHD stored at Sierra Army Depot, California.<sup>47</sup> Sierra Depot has the capability to deploy one hospital in decrement stock every 3 days, which would be insufficient for immediate response for a WMD incident.

The USAR also possesses specialty teams that could augment military hospitals or civilian "alternate care centers" which would be setup by local emergency management personnel when local hospitals have exhausted their available bed space.<sup>48</sup> Twenty-three Forward Surgical Teams are available also for immediate trauma and resuscitative care. Twenty-seven (27) US Army Hospitals and 28 Installation Medical Support Units in the USAR inventory can provide Medical Support Teams in specialty areas such as Pharmaceutical Distribution Teams, NBC Medical Treatment Teams, Preventive Medicine Teams, Infectious Disease Teams, Decon/Patient Regulating Teams and Stress Management Teams.

TABLE 3.  
U.S. ARMY RESERVE EARLY RESPONSE CAPABILITIES

MEDICAL MATERIEL SET	QUANTITY		
	HUB*	HUS**	HUM***
OPERATING ROOM	1	1	
CMS	1	1	
LAB, GENERAL	1		
X-RAY (HIGH CAPACITY)	1		1
TRIAGE/EMT	1		
INTENSIVE CARE UNIT	1	2	
INTERMEDIATE CARE WARD	2		2
BIOMEDICAL MAINT	1		
MED MAINT AUG	1		
# BEDS PER MODULE:	52	24	40

\* HUB: HOSPITAL UNIT BASE

\*\* HUS: HOSPITAL UNIT SURGICAL

\*\*\* HUM: HOSPITAL UNIT MEDICAL

MEET CONFIGURATIONS	CSH <sup>1</sup>	FIELD <sup>2</sup>	GEN
HUB ONLY	12	6	2
HUB + HUS	10	0	0
HUB + HUS + HUM	0	0	2

<sup>1</sup> INCLUDES 48TH & 228TH CSHs

<sup>2</sup> INCLUDES 328TH FIELD

## NAVY & MARINE CORPS RESERVE

The major platforms in the Navy Reserve and Marine Corps Reserve medical force structure that would be available for WMD response are surgical companies and Fleet Hospitals.<sup>49</sup> Surgical companies are part of the Fleet Marine Force medical assets in Medical Battalions assigned to Force Support Groups. There are 4 Fleet Hospitals in the Navy Reserve inventory that provide Echelon III support on-shore though additional echelon III support can be provided by the Navy Hospital ships.

Each Medical Battalion has the capability to provide 10 cots in each of the 8 platoons and 60 cots in each of the 3 surgical companies. Surgical companies have 193 personnel authorized to provide and have the capability of 3 operating rooms.

The Naval Expeditionary Medical Support System has the capability to provide 4 Naval Reserve 500 bed Fleet Hospitals typically used in Combat zones in wartime, contingency response and humanitarian operations. The 500 Bed Fleet Hospital has the capability to provide 6 OR tables, 80 ICU beds and 420 acute care beds when fully assembled over a 28 acre site. Staffing requirements are extensive with 978 personnel authorized. A major disadvantage for employment of this type of hospital in response to a WMD incident is the requirement for 89 vehicles along with 24 generators. The Naval Reserve is also at a similar disadvantage as the Army Reserve because all 4 Fleet Hospital DEPMEDS are prepositioned and are not available for rapid, early response. An example of one unit is the Fleet Hospital Great Lakes in Great Lakes, Illinois.<sup>50</sup> This unit is primarily a "personnel pool" of medical and non-medical support specialties assigned to 25 medical detachments located throughout the Midwest in Illinois, Indiana, Michigan and Ohio.

Each Fleet Hospital will have the future capability to deploy rapidly as an "Expeditionary Medical Facility" in an all climate environment and set up a modular inpatient medical facility ranging from 20 – 116 beds with or without Base Operating Support Modules.<sup>51</sup>

The Naval Reserve only has the current capability to rapidly respond within 24-48 hours with Medical Support Teams or Mobile Medical Augmentation Assets (MMARTS) in a domestic WMD incident. Stress management teams are available from MMART-Special Psychiatric Rapid Intervention (SPRINT) Teams along with surgical teams and MMART (PM) for preventive medicine.

## **CONCLUSIONS & RECOMMENDATIONS**

Outlining his Army Vision for the future, General Shinseki emphasizes, "that we must begin immediately to transition the entire Army into a force that is strategically responsive." The United States military medical personnel face daunting challenges in being strategically responsive in preparing for incidents involving weapons of mass casualties. The Department of Defense will play a major role in the domestic response to "weapons of mass casualties." There are two key areas that increased funding and effort can substantially improve the ability of the United States and the DoD medical force in the various reserve components to respond to incidents where weapons of mass casualties are employed: (1) a comprehensive approach in U.S. national strategy, planning, and coordination; (2) operational preparedness for crisis and consequence management. The Joint Task Force-Civil Support will play a significant role in both.

The designation of the Joint Task Force-Civil Support is an important first step in consolidating the DoD development of doctrine, training and exercise management, plans development and requirements development. However, no agency in the U.S. government has complete oversight of the development of U.S. national strategy and strategic planning responsibilities that coordinate efforts of DoD, Department of Justice, FBI or FEMA. The designation of a "Domestic Consequence Management Czar", similar to the "Drug Czar", would insure that federal expenditures for planning, coordination and equipment is wisely spent.

Active component medical forces can respond in a national emergency with required Deployable Medical Systems and transportation resources faster than reserve medical forces. The emerging threats and motives for use of "weapons of mass casualties" strongly support the further use of the reserve components when the demand placed on the United States Healthcare System following a WMD incident is unprecedented. Although the Army National Guard and Air Guard have early deploying capabilities to respond to a WMD incident, most reserve components do not have adequate Deployable Medical Systems at "home station" nor do they possess complete support requirements to include adequate transportation to respond to a domestic WMD incident when they will be needed.

Each of the services is undergoing a reengineering effort of its medical forces. The Army's Medical Reengineering Initiative is severely under funded which may result in USAR lower tiered force package units remaining as "Medical Force 2000 (MF2K)" units that are not strategically responsive or ready to respond to a WMD incident. The Joint Task Force-Civil Support must increase the operational preparedness of each service focusing on improving the response time to a WMD incident where weapons of mass casualties are employed by robust prior planning, coordination and training between active and reserve medical forces and between other federal, state and local authorities.

The recommendations from the Reserve Component Employment (RCE-05) Study along with recommendations of the Advisory Panel should form the basis for development of a more comprehensive operational plan for increasing the capabilities of the Reserve Components medical forces to respond to a terrorist incident especially if it is in response to "weapons of mass casualties. By improving the readiness

of the reserve components to respond to a WMD incident, significant loss of lives can be prevented. The Reserve Components may not be in the lead, and they may not even be there when they are needed.

Word Count -6,697



## ENDNOTES

<sup>1</sup> William S. Cohen, "Preparing for a Grave New World," *The Washington Post*, 26 July 1999; available from <<http://www.defenselink.mil/speeches/1999/s19990726-secdef.html>>; Internet; accessed 6 January 2000.

<sup>2</sup> Ibid

<sup>3</sup> Public Law 104-201, the National Defense Authorization Act for Fiscal Year 1997, Title XIV- Defense Against Weapons of Mass Destruction, Section 1403(1), 23 September 1996.

<sup>4</sup> Will Lester, "Most are hopeful about the future," *The Boston Globe*, 25 October 1999, p. F6.

<sup>5</sup> "Domestic Preparedness Program in the Defense Against Weapons of Mass Destruction," available from <[http://www.defenselink.mil/pubs/wmdresponse.chapter\\_1.html](http://www.defenselink.mil/pubs/wmdresponse.chapter_1.html)>; Internet; accessed. 28 September 1999.

<sup>6</sup> Pattern of Global Terrorism 1993 (United States Department of State).

<sup>7</sup> Steven K. Paulson, "Bombing Jury Reaches Verdict," 97.06.02, Associated Press.

<sup>8</sup> See Thomas J. Badey, "Defining International Terrorism: A Pragmatic Approach," Vol. 10, No.1 (Spring 1998), pp. 90-107.

<sup>9</sup> See First Annual Report to the President and The Congress of the ADVISORY PANEL TO ASSESS DOMESTIC RESPONSE CAPABILITIES FOR TERRORISM INVOLVING WEAPONS OF MASS DESTRUCTION, 15 December 1999, pg. ii.

<sup>10</sup> BG Bruce M. Lawlor, "JTF-CS," briefing slides, Harvard JFK School of Government, 9 November 1999.

<sup>11</sup> Jeffrey D. Simon, "Biological Terrorism: Preparing to Meet the Threat," *JAMA*, 278, 5, (6 August 1997): 428.

<sup>12</sup> Louis J. Freeh, "Encryption and Electronic Surveillance" speech 12 July 1999; available from <<http://www.fbi.gov/pressrm/dirspch/nycrimec.html>>; Internet; accessed 13 December 1999.

<sup>13</sup> Robert M. Burnham, "Threatened Use and Possession of Biological Agents" speech 19 May 1999; available from <http://www.fbi.gov/pressrm/congress/bio.htm>; Internet; accessed 13 December 1999.

<sup>14</sup> Ibid

<sup>15</sup> U.S Commission on National Security/21<sup>st</sup> Century, New World Coming: American Security in the 21<sup>st</sup> Century Major Themes and Implications, 15 September 1999.

<sup>16</sup> "First Annual Report to the President and The Congress," pgs 9-11.

<sup>17</sup> George J. Tenet, "The Worldwide Threat in 2000: Global Realities of National Security" testimony 2 February 2000 before the Senate Select Committee on Intelligence; available from <[http://www.cia.gov/cia/public\\_affairs/speeches/dci\\_speech\\_020200.html](http://www.cia.gov/cia/public_affairs/speeches/dci_speech_020200.html)>; Internet; accessed 11 March 2000.

<sup>18</sup> JTF-CS briefing 9 November 1999.

<sup>19</sup> William S. Cohen at the Conference on Terrorism, Weapons of Mass Destruction and Strategy, 28 April 1997 <<http://www.fbi.gov/pressrm/congress/congress99/freehct2.html>>; Internet; accessed 6 January 2000.

<sup>20</sup> Richard A. Falkenrath, Robert A. Newman, and Bradley A. Thayer, America's Achilles Heel: Nuclear, Biological, and Chemical Terrorism and Covert Attack, 2<sup>nd</sup> ed. Cambridge, MA: The MIT Press, pgs. 214-215.

<sup>21</sup> "First Annual Report to the President and The Congress of the ADVISORY PANEL TO ASSESS DOMESTIC RESPONSE CAPABILITIES FOR TERRORISM INVOLVING WEAPONS OF MASS DESTRUCTION, 15 December 1999.

<sup>22</sup> Matthew Brelis, "FAA targets airport security screening," Boston Globe, 7 January 2000, sec.D, p.4.

<sup>23</sup> Louis B. Freeh, "The Threat to the United States Posed by Terrorists" speech 4 February 1999; available from <<http://www.fbi.gov/pressrm/congress/congress99/freehct2.html>>; Internet; accessed 6 January 2000.

<sup>24</sup> See Graham T. Allison et al., Avoiding Nuclear Anarchy: Containing the Threat of Loose Russian Nuclear Weapons and Fissile Material(Cambridge, Mass., and London:MIT Press, 1996).

<sup>25</sup> "First Annual Report to the President and The Congress, pg. 64.

<sup>26</sup> "Terrorism Incident Annex"; available from <<http://www.fema.gov/r-n-r/frp/frpterr.html>>; Internet; accessed 9 December 1999.

<sup>27</sup> "Global Proliferation of Weapons of Mass Destruction," Hearings Before the Permanent Subcommittee on Investigations of the Committee on Governmental Affairs, US Senate, 104<sup>th</sup> Cong, 1st Sess., Part 1, October 31 and November 1, 1995 (hearings also held by the Subcommittee on March 20,22, and 27, 1996.

<sup>28</sup> "New Presidential Decision Directives"; available from <<http://www.state.gov/www/global/terrorism/1998Report/intro.html>>; Internet; accessed 21 September 1999.

<sup>29</sup> " Department of Defense Directive (DODD) 3025.1"; available from <[http://www.dtic.mil/domains/3025\\_1.txt](http://www.dtic.mil/domains/3025_1.txt)>; Internet; accessed 13 September 1999.

<sup>30</sup> Conference Report on H.R. 3230, p. H9074.

<sup>31</sup> "Domestic Preparedness Defense Against Weapons of Mass Destruction"; available from <<http://call.army.mil/ntfl/janfeb98/domprep.html>>; Internet; accessed 13 September 1999.

<sup>32</sup> Ibid

<sup>33</sup> Richard A. Falkenrath, pg.152.

<sup>34</sup> "DODD 6000.12", dated 29 April 1996.

<sup>35</sup> "Brig. Gen. Bruce M. Lawlor Appointed First Commanding General for Joint Task Force- Civil Support," available from <[http://www.defenselink.mil/news/Nov1999/b11011999\\_bt510-99.html](http://www.defenselink.mil/news/Nov1999/b11011999_bt510-99.html)>; Internet; accessed 29 November 1999.

<sup>36</sup> "Terrorism Incident Response"; available from <<http://www.nqb.dtic.mil/referenc/briefings/wmd/terrorismincidentresponsesummary.html>>; Internet; accessed 29 Nov 1999.

<sup>37</sup> Chuck McCutcheon, "Homeland Defense: Mobilizing Against Terrorism," 6 March 1999; available from <http://www.cq.com> Internet; accessed 13 December 1999.

<sup>38</sup> CPT Fletcher, "ARNG Medical Structure," Biothreat briefing slides, Ft. Belvoir, 21 October 1999.

<sup>39</sup> CPT Brian Warrick, "Air Force Medical Service Capabilities," briefing slides, Ft. Belvoir, 21 October 1999.

<sup>40</sup> BG Barbara C. Brannon, "Medical Global Engagement: Preparing Our Medical Warriors," 31 Oct 1999; Available from <[http://warmed.detrick.army.mil/SMCAF\\_Brannon\\_Oct99.ppt](http://warmed.detrick.army.mil/SMCAF_Brannon_Oct99.ppt)>; Internet; accessed 22 March 2000.

<sup>41</sup> Ibid

<sup>42</sup> SSGT Jack Siemieniec, "Army Reserve gears up for civil support mission," 22 March 2000; Available from <http://www.dtic.mil/armylink/news/Mar2000/a20000322usarcivil.html>; Internet; accessed 22 March 2000.

<sup>43</sup> Ibid

<sup>44</sup> "The Army Report: Procurement Holiday," AUSA Torchbearer Campaign Issue, (August 1999).

<sup>45</sup> MG Thomas J. Plewes, "Army Reserve Overview" testimony 8 March 2000 before the Subcommittee on Military Personnel Committee on Armed Services, House of Representatives; electronic mail message to James M. Baker <[jamb5@gis.net](mailto:jamb5@gis.net)>, 29 February 2000.

<sup>46</sup> MAJ Michael C. O'Guinn <[Michael.O'Guinn@DET.AMEDD.ARMY.MIL](mailto:Michael.O'Guinn@DET.AMEDD.ARMY.MIL)>, "USAR Capabilities," electronic mail message to James M. Baker <[jamb5@gis.net](mailto:jamb5@gis.net)>, 30 March 2000.

<sup>47</sup> Ibid

<sup>48</sup> Jerome Hauer, "New York City Emergency Preparedness," briefing, Harvard JFK School of Government CBW Colloquium, 1 March 2000.

<sup>49</sup> CPT Douglas Freer and MAJ Roger Marcil, 1<sup>st</sup> Marine Expeditionary Force Surgeon - Medical Plans and Operations Guide for Consequence Management(CM), 1998.

<sup>50</sup> Captain Marshall Cusic, "Naval Reserve Fleet Hospital Great Lakes," available from <http://www.nrfh9.navy.mil>. Internet; accessed 13 March 2000.

<sup>51</sup> Ibid



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